

ABSTRACT OF THE DISCLOSURE

A system for delivering material onto a substrate. The system includes a jetting system having a reservoir containing the material and the reservoir includes a nozzle through which the material is expelled from the reservoir. An arcuate section is positioned between the reservoir and the nozzle. The material is configured to travel from the reservoir, through the arcuate section, and through the nozzle. The system also includes a means for applying pressure on the material contained in the reservoir, wherein the material is expelled from the reservoir through application of pressure by the means for applying pressure to thereby create a column of the material from the nozzle. A means for producing pressure modulations is located proximate the nozzle and is configured to substantially regulate formation of droplets from the column of the material. In addition, the system includes a charging ring configured to induce an electrical charge to selective ones of the droplets as they pass through the charging ring. One or more deflection plates is also included for altering a trajectory of the charged droplets.